

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code		NPDES							yr/mo/day						Inspection Type		Inspector		Fac Type				
1	N		I	D	0	0	0	0	1	7	5	1	9	0	6	1	0	C	R	2			
Remarks																							
21																							
Inspection Work Days		Facility Self-Monitoring Evaluation Rating								BI		QA		-----Reserved-----									
67	1	0	69							70		71		72		73		74	75				80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) Hecla Limited - Lucky Friday Mine 397 Friday Avenue Mullan, ID 83846	Entry Time/Date 6/10/2019 / 8:35AM	Permit Effective Date September 14, 2003
	Exit Time/Date 6/10/2019 / 2:40PM	Permit Expiration Date September 14, 2008
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Lance Boylan, Health, Safety and Environmental Manager Office: 208-744-1833, Cell: 208-682-5655, Email: lboylyan@hecla-mining.com Clay Thomas, Environmental Engineer, EIT Office: 208-744-1926 Cell: 208-512-9080, Email: cthomas@hecla-mining.com	Other Facility Data (e.g., SIC NAICS, and other descriptive information) NAICS 212222 - Silver Ore Mining SIC 1044 - Silver Ores NAICS 212231 - Lead Ore & Zinc Ore Mining SIC 1031 - Lead & Zinc Ores	
Name, Address of Responsible Official/Title/Phone and Fax Number Lance Boylan, Health, Safety and Environmental Manager PO Box 31, Mullan, ID 83846 Office Phone: 208-744-1833, Cell Phone: 208-682-5655 Email: lboylyan@hecla-mining.com	Contacted <input checked="checked" type="checkbox"/> Yes <input type="checkbox"/> No	



Section C: Areas Evaluated During Inspection (*Check only those areas evaluated*)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Self-Monitoring Program	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input checked="" type="checkbox"/> Records/Reports	<input type="checkbox"/> Compliance Schedules	<input type="checkbox"/> Pollution Prevention	
<input checked="" type="checkbox"/> Facility Site Review	<input type="checkbox"/> Laboratory	<input type="checkbox"/> Storm Water	
<input checked="" type="checkbox"/> Effluent/Receiving Waters	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input checked="" type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes	SEV Description
● ● ● ● ● ● ● ● ● ●	_____
● ● ● ● ● ● ● ● ● ●	_____
● ● ● ● ● ● ● ● ● ●	_____
● ● ● ● ● ● ● ● ● ●	_____

Name(s) and Signature(s) of Inspector(s) Matt Vojik 	Agency/Office/Phone and Fax Numbers EPA / ECAD / 206-553-0716	Date 6/20/2019
Signature of Management Q A Reviewer 	Agency/Office/Phone and Fax Numbers EPA/ECAD 206 553 6708	Date 8.7.19

10/15, 12/19

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 [N] []	[I][D][R][0][5][3][1][3][9]	[1][9][06][1][0] Remarks	[~]	[R]	[2]
21					
Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	-----Reserved-----	
67 [] [1][0] 69	70 []	71 []	72 []	73 [] [] 74	75 [] [] [] [] [] 80

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Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) Hecla Limited - Lucky Friday Mine 397 Friday Avenue Mullan, ID 83846	Entry Time/Date 6/10/2019 / 8:35AM	Permit Effective Date August 12, 2015
	Exit Time/Date 6/10/2019 / 2:40PM	Permit Expiration Date June 4, 2020
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Lance Boylan, Health, Safety and Environmental Manager Office: 208-744-1833, Cell: 208-682-5655, Email: lboylan@hecla-mining.com Clay Thomas, Environmental Engineer, EIT Office: 208-744-1926 Cell: 208-512-9080, Email: cthomas@hecla-mining.com	Other Facility Data (e.g., SIC NAICS, and other descriptive information) NAICS 212222 - Silver Ore Mining SIC 1044 - Silver Ores NAICS 212231 - Lead Ore & Zinc Ore Mining SIC 1031 - Lead & Zinc Ores	
Name, Address of Responsible Official/Title/Phone and Fax Number Lance Boylan, Health, Safety and Environmental Manager PO Box 31, Mullan, ID 83846 Office Phone: 208-744-1833, Cell Phone: 208-682-5655 Email: lboylan@hecla-mining.com	<div> <div>Contacted</div> <div> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No </div> </div> Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) Sector G - Metal Mining	


Section C: Areas Evaluated During Inspection (Check only those areas evaluated)


<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Self-Monitoring Program	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> MS4
<input checked="" type="checkbox"/> Records/Reports	<input type="checkbox"/> Compliance Schedules	<input checked="" type="checkbox"/> Pollution Prevention	
<input checked="" type="checkbox"/> Facility Site Review	<input type="checkbox"/> Laboratory	<input checked="" type="checkbox"/> Storm Water	
<input checked="" type="checkbox"/> Effluent/Receiving Waters	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> Combined Sewer Overflow	
<input type="checkbox"/> Flow Measurement	<input type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes		SEV Description
• • • • •	• • • • •	
• • • • •	• • • • •	
• • • • •	• • • • •	
• • • • •	• • • • •	

Name(s) and Signature(s) of Inspector(s) Matt Vojik 	Agency/Office/Phone and Fax Numbers EPA / ECAD / 206-553-0716	Date 6/20/2019

Signature of Management QA Reviewer 	Agency/Office/Phone and Fax Numbers EPA / ECAD 206 553 6708	Date 8.7.19
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1005 kmvL
42/110

NPDES Inspection Report

Permit # ID0000175 & IDR053139

Hecla Limited - Lucky Friday Mine

Mullan, ID

June 10, 2019

Prepared by:

Matt Vojik

Environmental Protection Agency (EPA), Region 10 (R10)

Enforcement & Compliance Assurance Division (ECAD)

Water Enforcement & Field Branch (WEFB)

Field, Data & Drinking Water Enforcement Section (FDDWES)

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ATTACHMENT A – Site Maps

ATTACHMENT B – Photograph Log

(Unless otherwise noted, all details in this inspection report were obtained from conversations with Mr. Lance Boylan, Mr. Clay Thomas, or from observations during the inspection.)

I. Facility Information

Facility Name: Hecla Limited - Lucky Friday Mine

Facility Owner/Operator: Hecla Limited

Physical Address: 397 Friday Avenue, Mullan, ID 83846

Lat/Long: +47.470047, -115.78342

Mailing Address: P.O. Box 31, Mullan, ID 83846

Facility Contacts: Lance Boylan, Health, Safety and Environmental Manager
Office Phone: 208-744-1833
Cell Phone: 208-682-5655
Email: lboylan@hecla-mining.com

Clay Thomas, Environmental Engineer, EIT
Office Phone: 208-744-1926
Cell Phone: 208-512-9080
Email: cthomas@hecla-mining.com

Permit Numbers: ID0000175 (Individual Permit)
IDR053139 (Multi-Sector General Permit for Stormwater)

SIC/NAICS Codes: 1044 / 212222 – Silver Ore Mining
1031 / 212231 – Lead Ore & Zinc Ore Mining

Receiving Water: South Fork Coeur d’Alene River

II. Inspection Information

Inspection Date: June 10, 2019

Inspectors: Matt Vojik, EPA/R10/ECAD/WEFB/FDDWES
Wes Green, Idaho Department of Environmental Quality

Arrival Time: 8:35 AM

Departure Time: 2:40 PM

Weather: Sunny

Purpose: To determine whether the facility is in compliance with their National Pollutant Discharge Elimination System (NPDES) permit and the Clean Water Act (CWA).

III. Permit Information

This facility is permitted to discharge under individual NPDES permit ID0000175. The permit became effective on September 14, 2003 and has been administratively extended since the expiration date of September 14, 2008. The facility also has coverage under the Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP), Sector G (Metal Mining) with the tracking number IDR053139. The current MSGP became effective on December 9, 2015 and has an expiration date of June 3, 2020.

IV. Background

The facility is an underground mine producing silver, lead and zinc. The mine complex includes a processing mill, four tailings ponds, two indoor wastewater treatment plants (WWTP 002 and WWTP 003), three individually permitted outfalls and eight potential MSGP stormwater outfalls. The Lucky Friday Mine has been involved in a labor strike since 2017 and was in limited production at the time of the inspection.

The facility was last inspected for NPDES permit compliance on May 17, 2017 by the EPA. On June 24, 2015, the EPA entered into a stipulation of judgment resolving CWA violations for discharging unpermitted pollutants and exceeding permitted limits for lead, zinc, and cadmium. The facility agreed to pay a penalty of \$600,000.

In 2015 the facility also completed a multi-year hydrogeologic investigation at Tailings Pond #3 in response to a 2013 Request for Information from the EPA. According to the December 2015 hydrogeologic investigation report, no exceedances of Idaho's primary groundwater quality standards were identified during the investigation. In 2015 the facility entered into a voluntary consent order with the Idaho Department of Environmental Quality (IDEQ) to implement a closure plan for Tailings Pond #3.

V. Inspection Chronology

This was an announced inspection. On Friday, June 7, 2019, I called Mr. Lance Boylan, Health, Safety and Environmental (EHS) Manager, and made arrangements to meet on the day of the inspection. I arrived at the facility with Mr. Wes Green from IDEQ at 8:35am on Monday, June 10, 2019. I presented my credentials to Mr. Boylan and provided him an EPA Small Business Resources Information Sheet. We were accompanied throughout the inspection by facility representatives. We were not denied access to the facility.

I began the inspection with a brief opening conference with Mr. Boylan in his office. After taking a tour of the facility, we conducted a file review. We ended with a closing conference to discuss observations and next steps.

VI. Opening Conference

Mr. Boylan has worked at the facility since 2011 and has served as the EHS manager since January 2019. Under normal operating conditions, the workforce consists of approximately 270 employees. The Lucky Friday Mine has been involved in a labor strike since 2017 and had a workforce of approximately 70 employees at the time of the inspection.

Mr. Boylan said that current mining activities were located approximately 6,300 feet underground and the facility has plans to extend operations to a depth of 10,000 feet. He estimated that the mine dewateres 100 gallons per minute. Dewatering flows are used in facility processes and treated prior to discharge.

VII. Site Review

Mr. Boylan took us on a tour of the facility. We were joined by Mr. Clay Thomas, Environmental Engineer. Site maps appear in **Attachment A** and a photograph log appears in **Attachment B**.

In the area around the mine and mill, I observed a series of stormwater drains and catchment basins (**Photos 1 & 2**). This collection system delivers industrial stormwater to wastewater treatment plant 002 (WWTP 002) for treatment. I inspected WWTP 002, which received all of the facility's wastewater flows at the time of the inspection. WWTP 002 discharges to Outfall 002 (**Photo 3**) under individual permit ID0000175. Outfall 002 is located near Tailings Pond #2, which has been closed and reclaimed.

I inspected WWTP 003 (**Photo 4**), which was not in use at the time of the inspection. WWTP 003 discharges to Outfall 003 (**Photo 5**) under individual permit ID0000175. WWTP 003 and Outfall 003 are located near Tailings Pond #3, which no longer receives tailings and is in the process of closure. I also inspected Tailings Pond #1, which has been closed and reclaimed. I observed that Outfall 001 (**Photo 6**) has been capped to prevent discharge. All tailings are collected in lined Tailings Pond #4 (**Photo 7**).

I also inspected eight potential stormwater outfalls that the facility has identified under MSGP IDR053139. Mr. Boylan and Mr. Thomas said that the facility inspects all eight potential outfalls for MSGP compliance, but Stormwater Outfall 001 (**Photo 8**) is the only location where industrial stormwater discharges are periodically observed. Receiving waters associated with the potential stormwater outfalls include the South Fork Coeur d'Alene River, Little North Fork of South Fork Coeur d'Alene River, Harris Creek, Hunter Creek and Daisy Creek. The South Fork Coeur d'Alene River is identified as the only receiving water associated with the three outfalls under individual permit ID0000175.

During the facility tour, Mr. Boylan and Mr. Thomas also described effluent sampling procedures at each outfall. The facility also has ambient monitoring stations in the South Fork Coeur d'Alene River at points upstream of each of the three outfalls under the individual permit ID0000175. Flow measurement devices include transducers at the ambient monitoring stations, an inline flow meter at Outfall 002 and a bubbler flow meter at Outfall 003.

VIII. File Review

I reviewed the following records:

- Discharge Monitoring Reports (DMRs) and analytical records, with a focus on the monitoring periods of April 2019 and May 2019
- Best Management Practices (BMP) Plan dated December 2018
- Stormwater Pollution Prevention Plan (SWPPP) dated November 10, 2015
- Routine stormwater inspection records
- Quarterly visual stormwater assessment records
- SWPPP training records

IX. Areas of Concern

I noted the following area of concern:

A. Effluent Limit Exceedances

Part I.A.1. of the permit states that “the permittee must comply with the effluent limits in the tables at all times....”

Based on my review of DMR data, since the previous NPDES compliance inspection in May 2017, the facility exceeded the maximum daily effluent limit for total recoverable lead (50 ug/L) in February 2019 (68 ug/L) and March 2019 (55 ug/L). Mr. Boylan attributed these exceedances to operational challenges associated with the facility's attempts to operate WWTP 002 intermittently during periods of limited production. The facility has responded with corrective measures described in a letter to the EPA dated March 20, 2019.

X. Closing Conference

I held a closing conference with Mr. Boylan and Mr. Thomas. We discussed the areas of concern identified during the inspection and I gave a brief overview of the post-inspection process. I thanked them for their time and assistance.

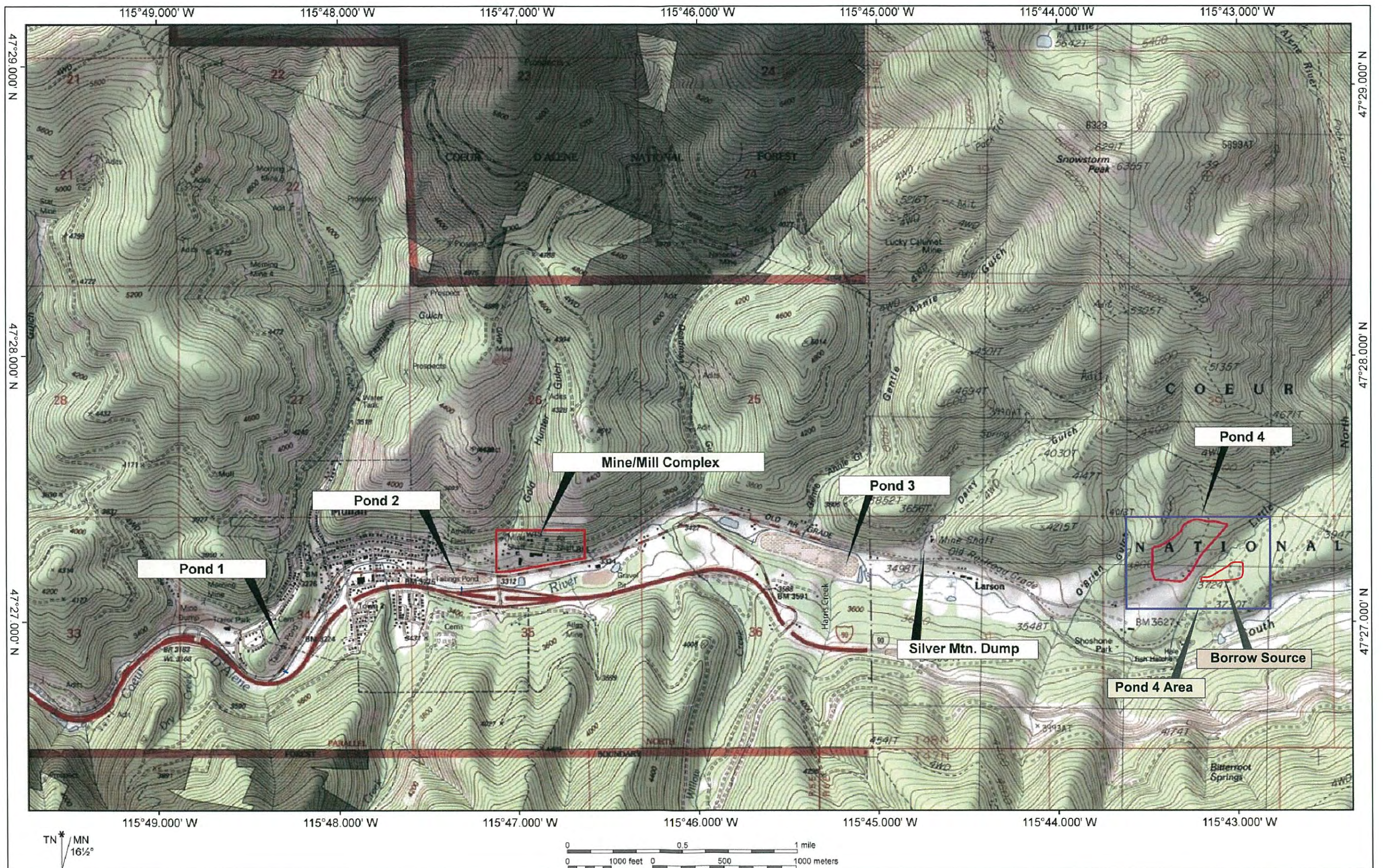
Report Completion Date:

8/6/2019

M. [Signature]

Lead Inspector Signature:

ATTACHMENT A – Site Maps



ENGINEER	
DRAWN BY	CS
CHECKED BY	
APPROVED BY	
APPROVED BY	
DATE	5-1-12
SCALE	

SWPPP Figure 1



REVISION NO.

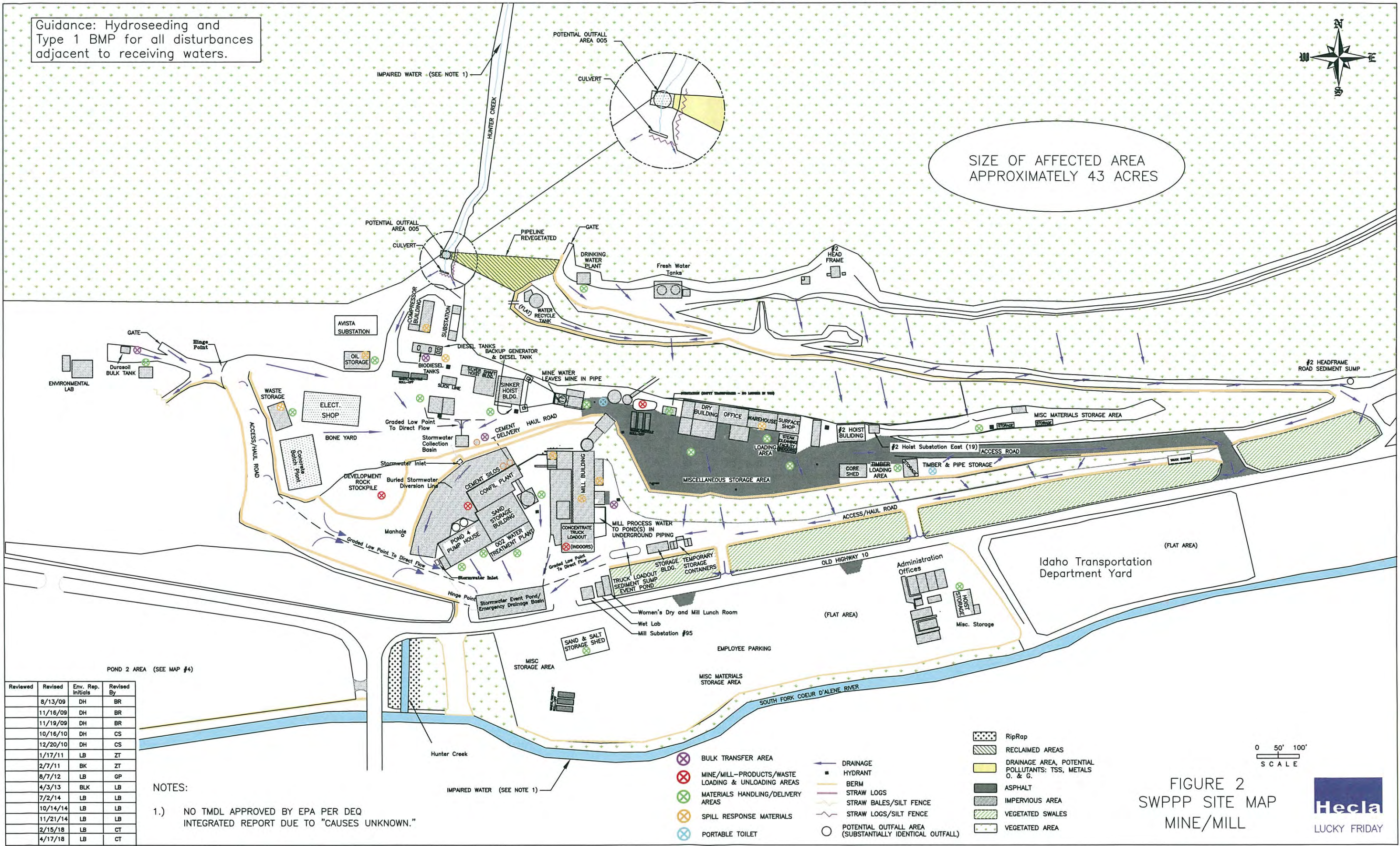
DRAWING NO.

Figure 1

Guidance: Hydroseeding and Type 1 BMP for all disturbances adjacent to receiving waters.



SIZE OF AFFECTED AREA
APPROXIMATELY 43 ACRES



Reviewed	Revised	Env. Rep. Initials	Revised By
	8/13/09	DH	BR
	11/16/09	DH	BR
	11/19/09	DH	BR
	10/16/10	DH	CS
	12/20/10	DH	CS
	1/17/11	LB	ZT
	2/7/11	BK	ZT
	6/7/12	LB	GP
	4/3/13	BLK	LB
	7/2/14	LB	LB
	10/14/14	LB	LB
	11/21/14	LB	LB
	2/15/18	LB	CT
	4/17/18	LB	CT

NOTES:
1.) NO TMDL APPROVED BY EPA PER DEQ INTEGRATED REPORT DUE TO "CAUSES UNKNOWN."

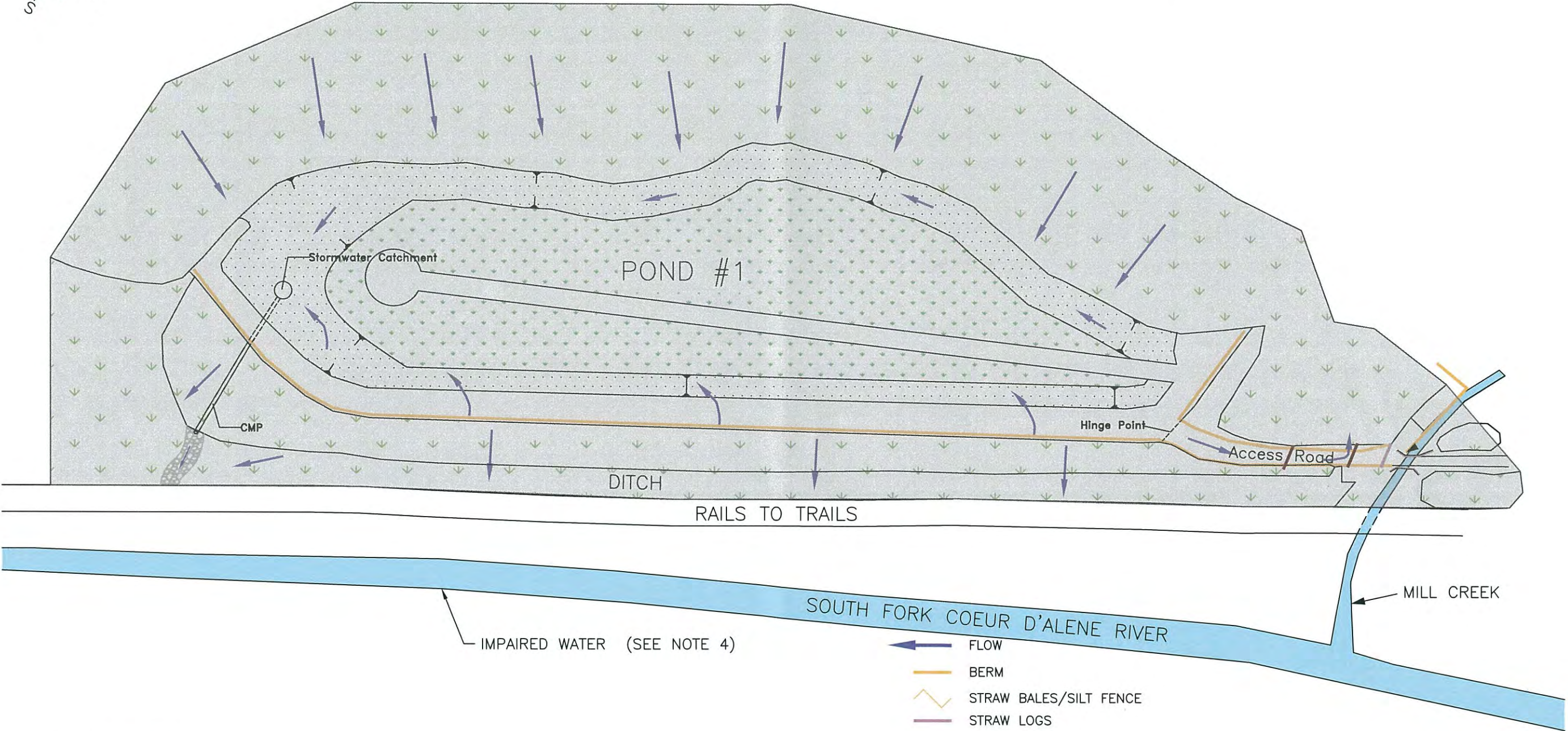
FIGURE 2
SWPPP SITE MAP
MINE/MILL



Pond 1 Has been closed, and has met IDWR's requirements for "reclamation construction for abandonment" per Idaho Code 42-1714. See Appendix P for IDWR's letter "Lucky Friday Mine Tailings Impoundment #1, Release of Lexon Bond #1033912" Dated December 4, 2013 for more details. This portion of the site meets the requirements of MSGP 8.G.9.1 and is no longer required to maintain coverage under the MSGP.

VEGETATED HILLSIDE

SIZE OF AFFECTED AREA
APPROXIMATELY 9 ACRES



- FLOW
- BERM
- STRAW BALES/SILT FENCE
- STRAW LOGS
- WATER DIVERSION
- Rip-rap
- POTENTIAL OUTFALL AREA
- VEGETATED AREA
- POTENTIAL OUTFALL AREA (SUBSTANTIALLY IDENTICAL OUTFALL)
- Gravel
- RECLAIMED AREA

NOTES:

- 1.) ALL OUTER BANKS OF POND ARE RECLAIMED.
- 2.) POND CONSTRUCTED WITH DEVELOPMENT ROCK.
- 3.) POND USED FOR DISPOSAL OF TAILINGS.
- 4.) NO TMDL APPROVED BY EPA PER DEQ INTEGRATED REPORT DUE TO "CAUSES UNKNOWN."
- 5.) POND CLOSED PER IDWR REQUIREMENTS IN 2013

Reviewed	Revised	Env. Rep. Initials	Revised By
11/22/04		GLN	
10/07		DH	GP
	05/14/09	DH	BR
	11/19/09	DH	BR
	11/16/10	DH	CS
	8/7/12	LB	GP
	8/7/12	LB	LB
	10/8/13	LB	LB
	5/17/17	LB	LB
	2/14/18	LB	CT



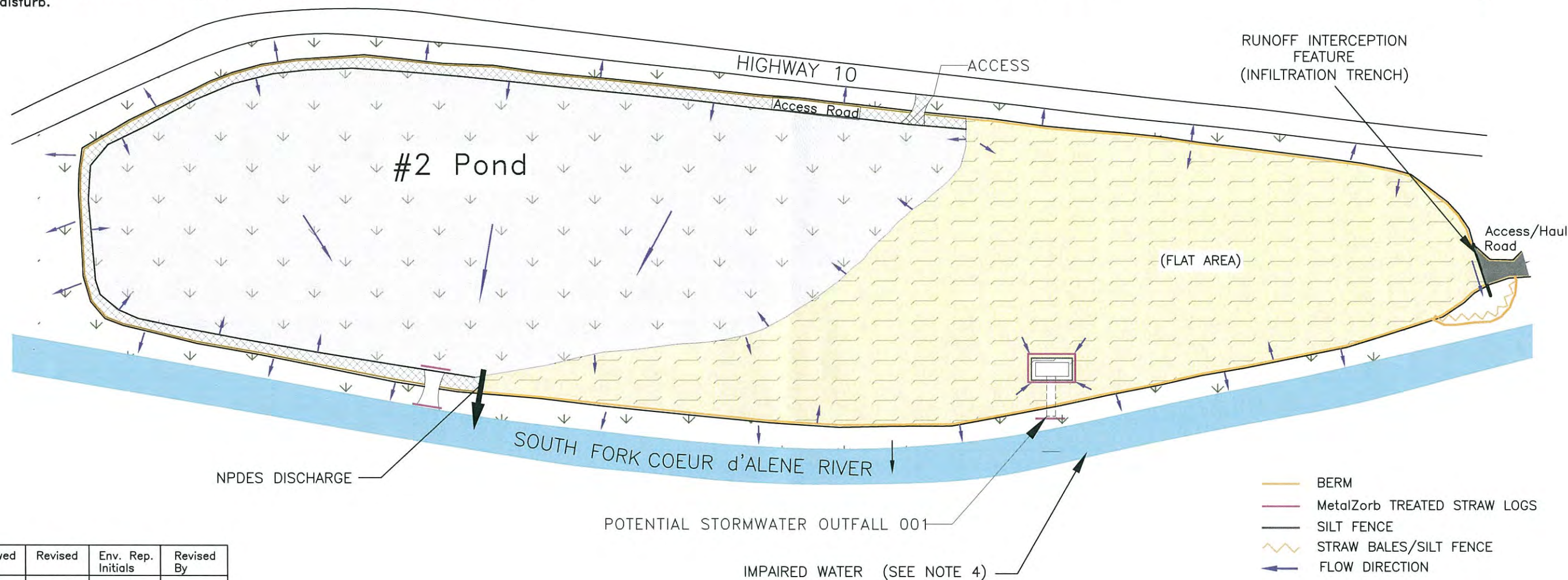
SWPPP FIGURE 3
#1 POND



The western half of Pond 2 has been closed, and has met IDWR's requirements for "reclamation construction for abandonment" per Idaho Code 42-1714. See Appendix P for IDWR's letter "Lucky Friday Mine Tailings Impoundment #2, Release of Lexon Bond #1033913" Dated February 6, 2013 for more details. This portion of the site meets the requirements of MSGP 8.G.9.1 and is no longer required to maintain coverage under the MSGP.

Guidance: Hydroseed and Type 1 BMP in down-gradient area for all new disturb.

SIZE OF AFFECTED AREA
APPROXIMATELY 10 ACRES



Reviewed	Revised	Env. Rep. Initials	Revised By
	11/22/04	GLN	GP
	05/14/09	DH	BR
	11/20/09	DH	BR
	11/25/09	DH	BR
	11/16/10	DH	CS
	12/20/10	DH	CS
	1/17/11	LB	ZT
	8/7/12	LB	GP
	1/16/13	LB	LB
	10/18/13	BK	LB
	5/17/17	LB	LB
	2/15/18	LB	CT

NOTES:

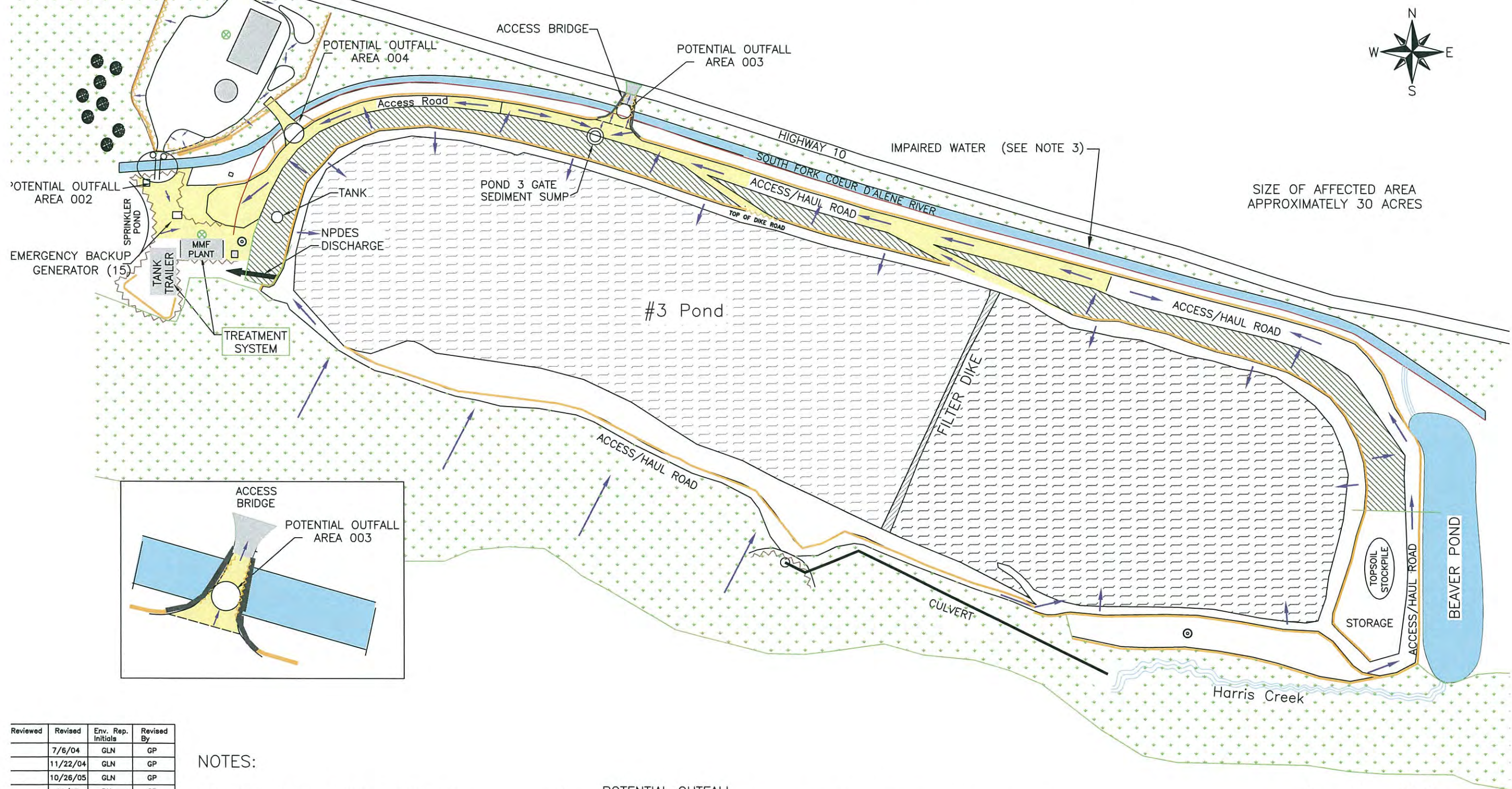
- 1.) ALL OUTER BANKS OF POND ARE RECLAIMED.
- 2.) POND CONSTRUCTED WITH DEVELOPMENT ROCK.
- 3.) POND USED FOR DISPOSAL OF TAILINGS.
- 4.) NO TMDL APPROVED BY EPA PER DEQ INTEGRATED REPORT DUE TO "CAUSES UNKNOWN."
- 5.) WESTERN HALF OF POND CLOSED PER IDWR REQUIREMENTS 2012.

FIGURE 4
SWPPP SITE MAP
#2 POND



See Figure 6 for more detail of Clarifier Area

Guidance: Hydroseed and Type 1 BMP in down-gradient area for all new disturb.



NOTES:

- 1.) ALL OUTER BANK SLOPES OF POND ARE RECLAIMED.
- 2.) POND USED FOR DISPOSAL OF TAILINGS.
- 3.) NO TMDL APPROVED BY EPA PER DEQ INTEGRATED REPORT DUE TO "CAUSES UNKNOWN"

○

POTENTIAL OUTFALL
(SUBSTANTIALLY IDENTICAL OUTFALL)

⊗

MATERIALS HANDLING/DELIVERY AREA

⊙

Sump

—

BERM

—

JERSEY BARRIERS & FILTER FABRIC

~~~~~

STRAW LOGS & SILT FENCE

→

FLOW DIRECTION

RECLAIMED AREA

TAILINGS

DRAINAGE AREA, POTENTIAL  
POLLUTANTS: TSS, METALS O. & G.

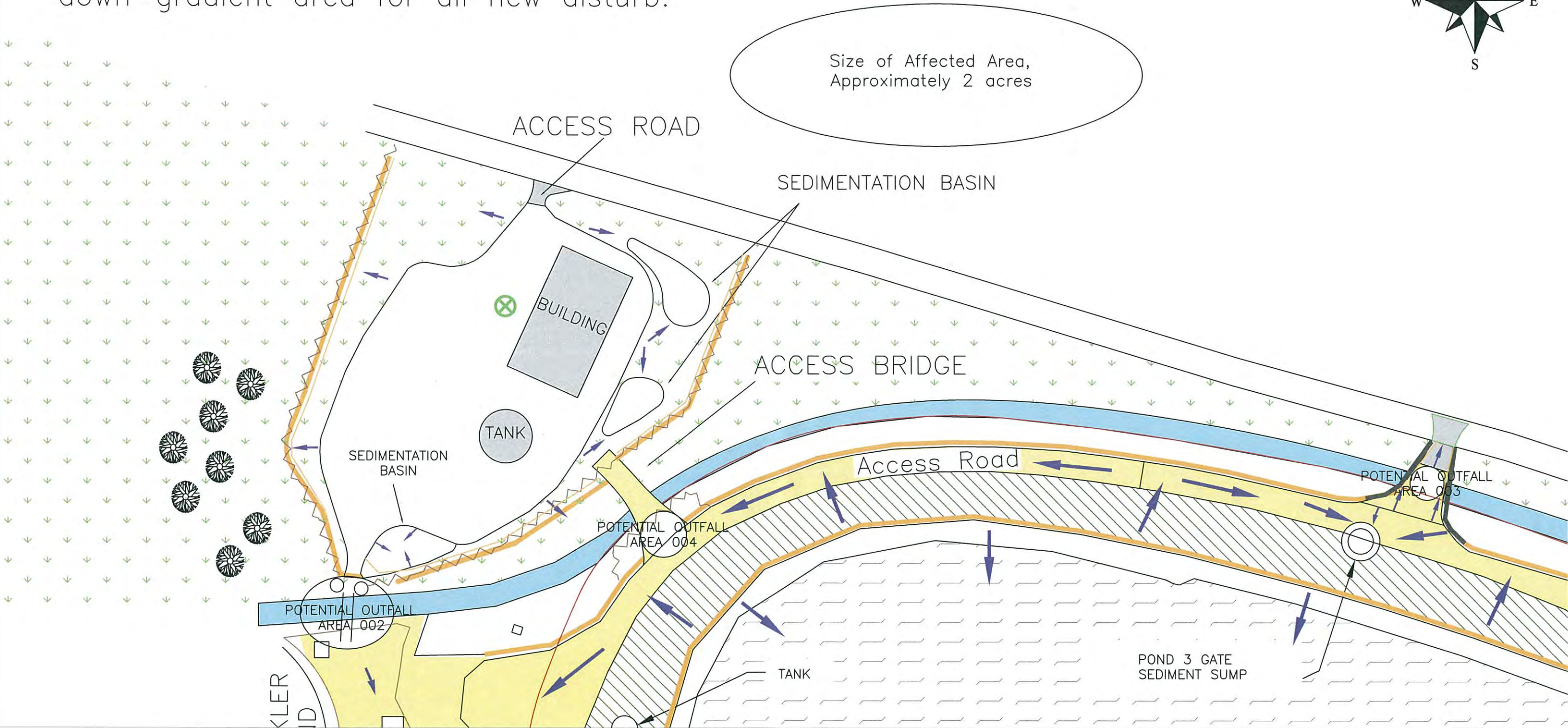
VEGETATED AREA

Asphalt

FIGURE 5  
SWPPP SITE MAP  
#3 POND

| Reviewed | Revised  | Env. Rep. Initials | Revised By |
|----------|----------|--------------------|------------|
|          | 7/6/04   | GLN                | GP         |
|          | 11/22/04 | GLN                | GP         |
|          | 10/26/05 | GLN                | GP         |
|          | 10/07    | DH                 | GP         |
|          | 8/18/08  | DM                 | ZT         |
|          | 5/14/09  | DH                 | BR         |
|          | 11/20/09 | DH                 | BR         |
|          | 11/25/09 | DH                 | BR         |
|          | 11/16/10 | DH                 | CS         |
|          | 12/20/10 | DH                 | CS         |
|          | 1/25/11  | LB                 | ZT         |
|          | 8/7/12   | LB                 | GP         |
|          | 5/17/17  | LB                 | LB         |
|          | 2/15/18  | LB                 | CT         |

Guidance: Hydroseed and Type 1 BMP in down-gradient area for all new disturb.



NOTES:

- 1.) ALL OUTER BANK SLOPES OF POND ARE RECLAIMED.
- 2.) POND USED FOR DISPOSAL OF TAILINGS.
- 3.) NO TMDL APPROVED BY EPA PER DEQ INTEGRATED REPORT DUE TO "CAUSES UNKNOWN."

| Reviewed | Revised | Env. Rep. Initials | Revised By |
|----------|---------|--------------------|------------|
| BK       | 5-1-12  | BK                 | CS         |
|          | 8-7-12  | BK                 | GP         |
|          | 5-27-17 | LB                 | LB         |
|          | 2-15-18 | LB                 | CT         |
|          |         |                    |            |
|          |         |                    |            |

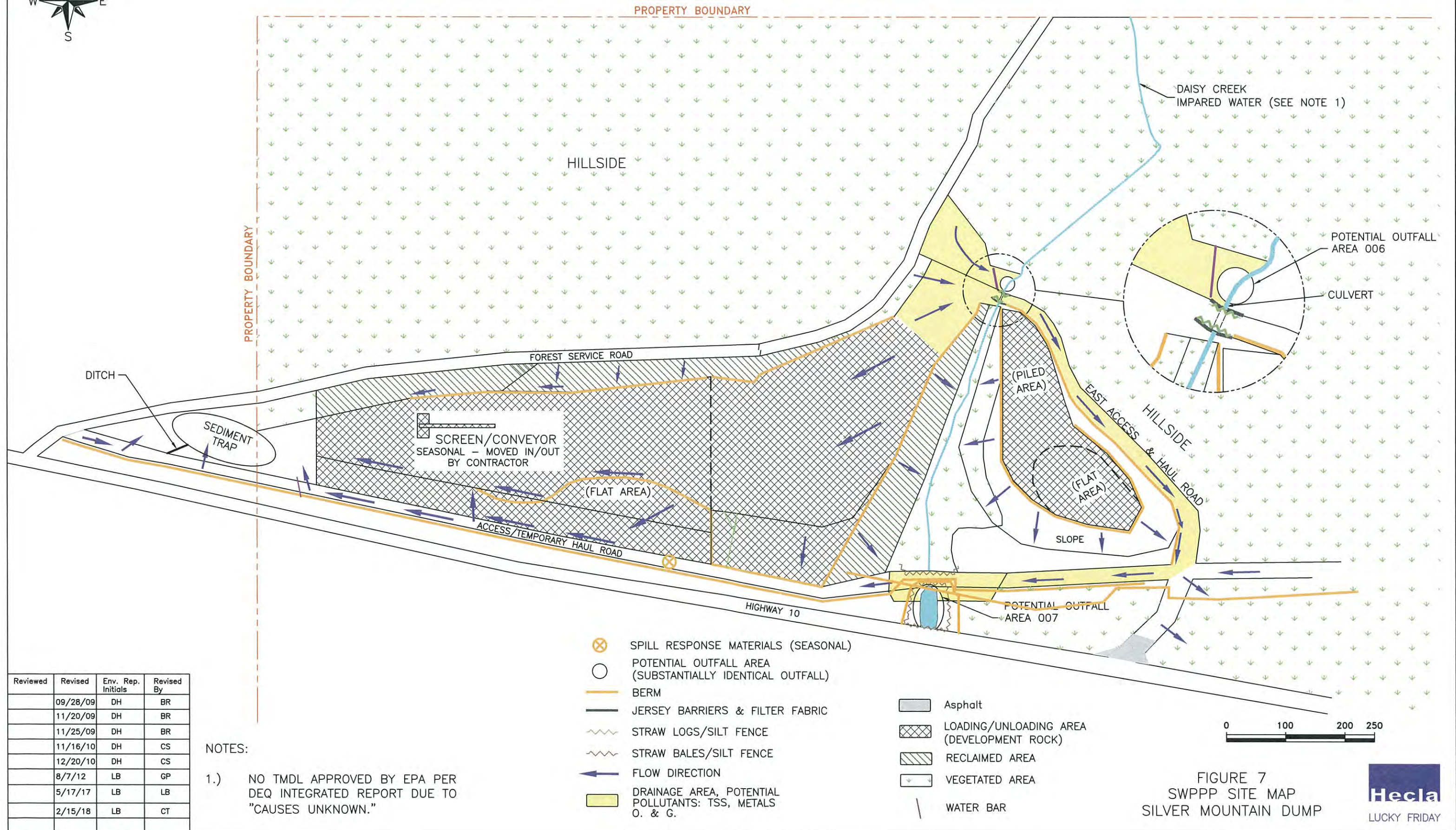
- POTENTIAL OUTFALL (SUBSTANTIALLY IDENTICAL OUTFALL)
- MATERIALS HANDLING/DELIVERY AREA
- Sump
- BERM
- JERSEY BARRIERS & FILTER FABRIC
- STRAW LOGS & SILT FENCE
- FLOW DIRECTION
- RECLAIMED AREA
- TAILINGS
- DRAINAGE AREA, POTENTIAL POLLUTANTS: TSS, METALS O. & G.
- VEGETATED AREA
- Asphalt

FIGURE 6  
SWPPP SITE MAP  
Clarifier Area

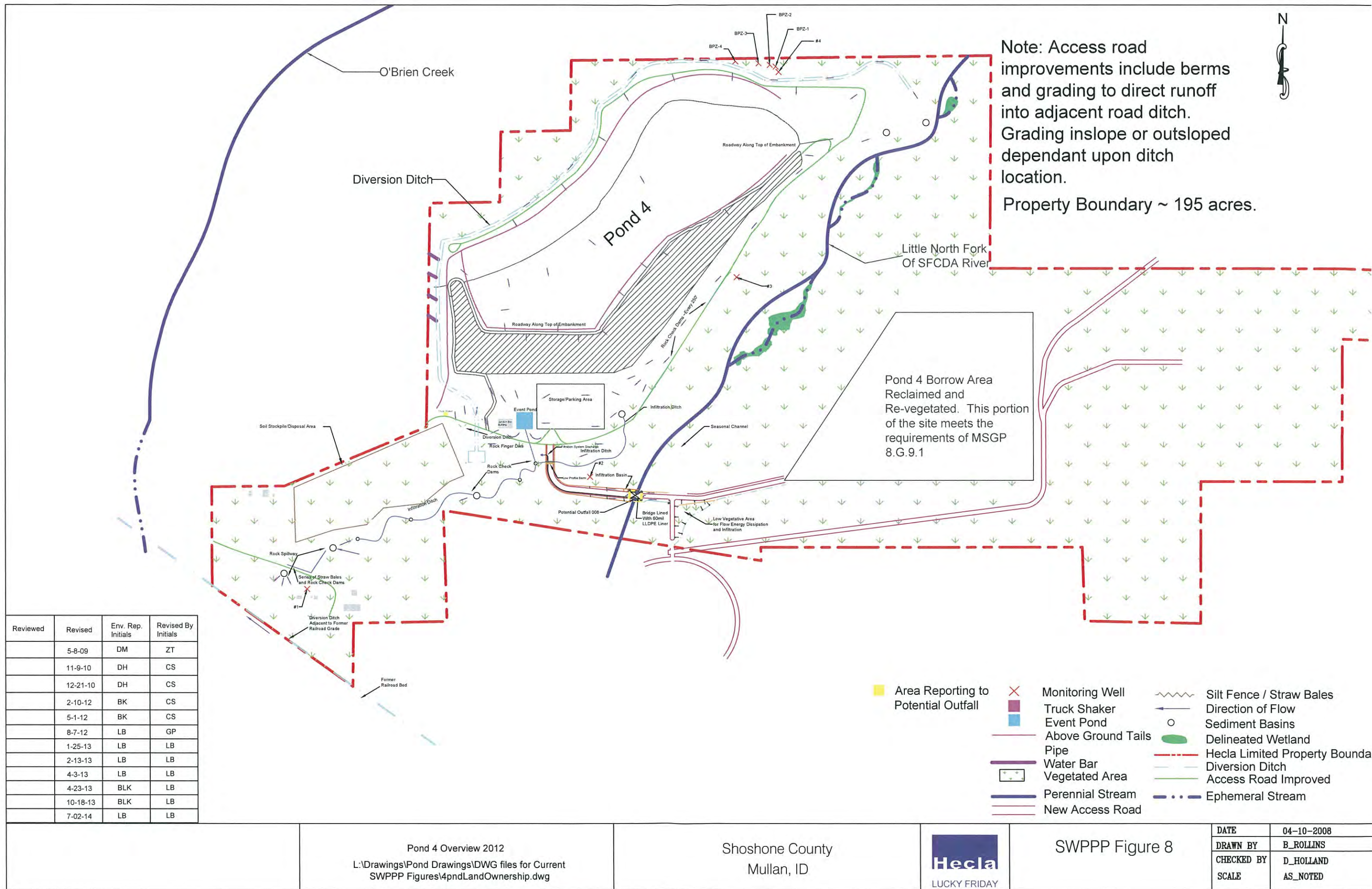


Guidance: Hydroseed and Type 1 BMP in down-gradient area for all new disturb.

SIZE OF AFFECTED AREA  
APPROXIMATELY 14 ACRES

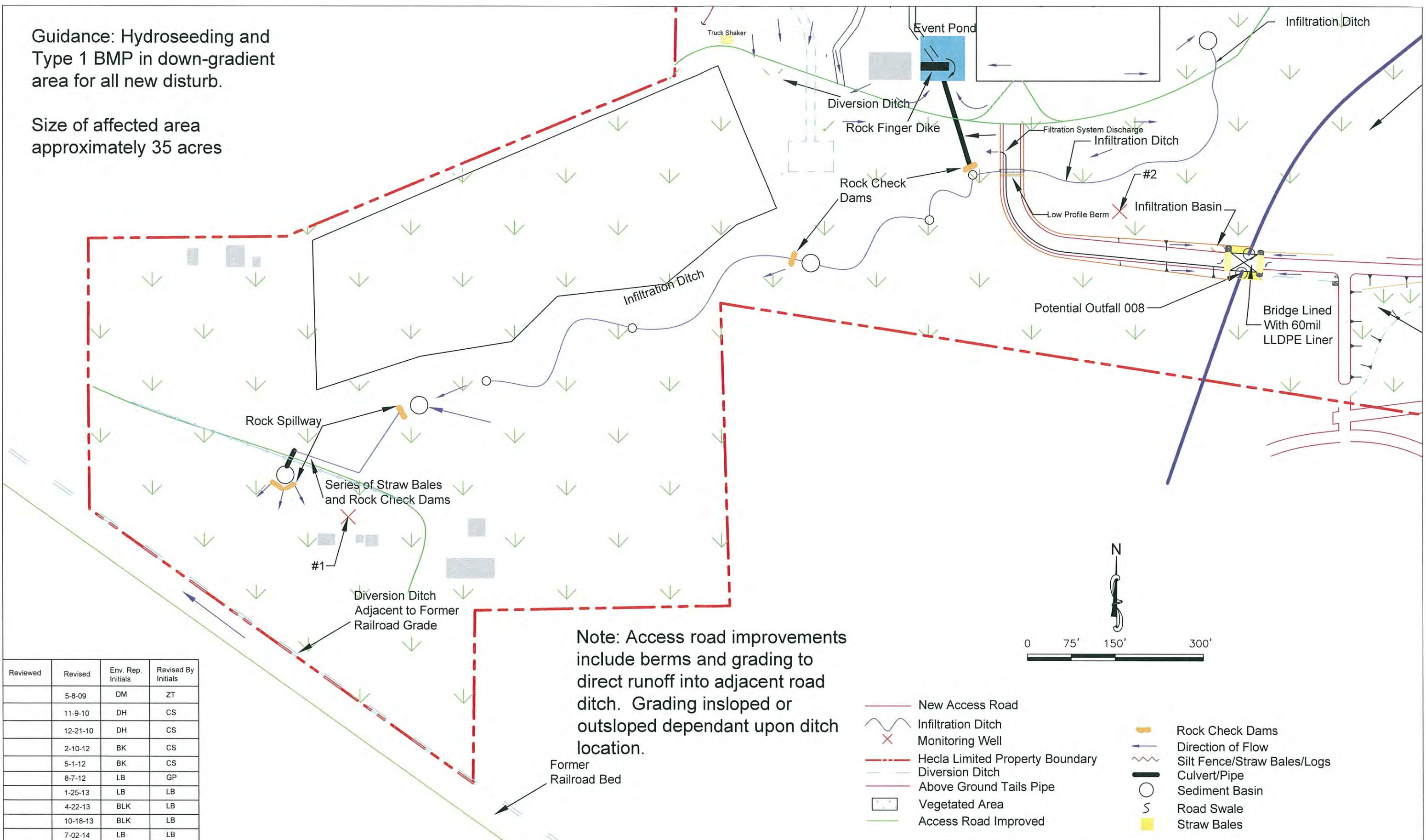


| Reviewed | Revised  | Env. Rep. Initials | Revised By |
|----------|----------|--------------------|------------|
|          | 09/28/09 | DH                 | BR         |
|          | 11/20/09 | DH                 | BR         |
|          | 11/25/09 | DH                 | BR         |
|          | 11/16/10 | DH                 | CS         |
|          | 12/20/10 | DH                 | CS         |
|          | 8/7/12   | LB                 | GP         |
|          | 5/17/17  | LB                 | LB         |
|          | 2/15/18  | LB                 | CT         |



Guidance: Hydroseeding and Type 1 BMP in down-gradient area for all new disturb.

Size of affected area approximately 35 acres



| Reviewed | Revised  | Env. Rep. Initials | Revised By Initials |
|----------|----------|--------------------|---------------------|
|          | 5-8-09   | DM                 | ZT                  |
|          | 11-9-10  | DH                 | CS                  |
|          | 12-21-10 | DH                 | CS                  |
|          | 2-10-12  | BK                 | CS                  |
|          | 5-1-12   | BK                 | CS                  |
|          | 8-7-12   | LB                 | GP                  |
|          | 1-25-13  | LB                 | LB                  |
|          | 4-22-13  | BLK                | LB                  |
|          | 10-18-13 | BLK                | LB                  |
|          | 7-02-14  | LB                 | LB                  |

Guidance: Hydroseeding and Type 1 BMP in down-gradient area for all new disturb.

Size of affected area approximately 62 acres.

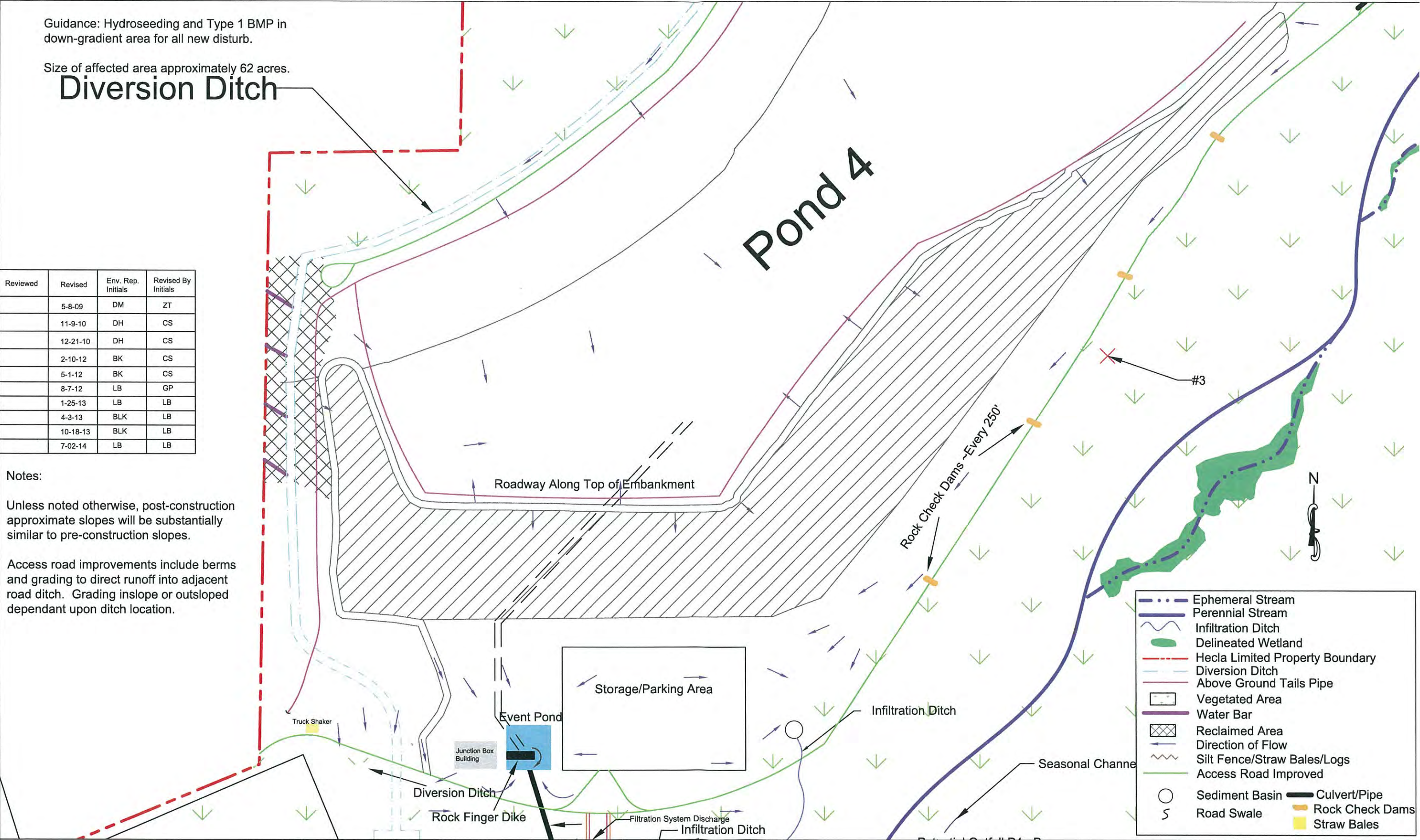
Diversion Ditch

| Reviewed | Revised  | Env. Rep. Initials | Revised By Initials |
|----------|----------|--------------------|---------------------|
|          | 5-8-09   | DM                 | ZT                  |
|          | 11-9-10  | DH                 | CS                  |
|          | 12-21-10 | DH                 | CS                  |
|          | 2-10-12  | BK                 | CS                  |
|          | 5-1-12   | BK                 | CS                  |
|          | 8-7-12   | LB                 | GP                  |
|          | 1-25-13  | LB                 | LB                  |
|          | 4-3-13   | BLK                | LB                  |
|          | 10-18-13 | BLK                | LB                  |
|          | 7-02-14  | LB                 | LB                  |

Notes:

Unless noted otherwise, post-construction approximate slopes will be substantially similar to pre-construction slopes.

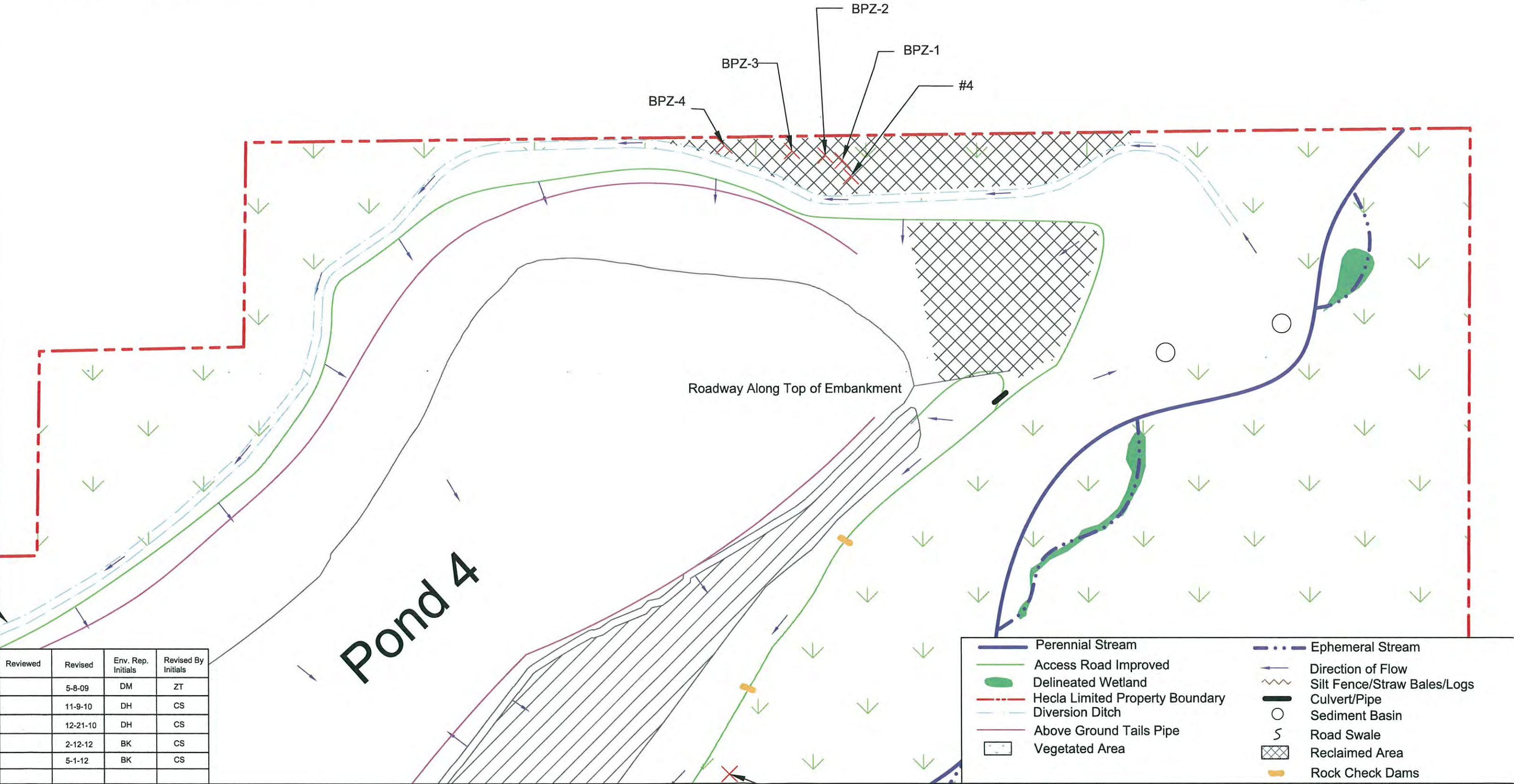
Access road improvements include berms and grading to direct runoff into adjacent road ditch. Grading inslope or outsloped dependant upon ditch location.



|            |           |
|------------|-----------|
| DATE       | 04-03-13  |
| DRAWN BY   | B_ROLLINS |
| CHECKED BY | D_HOLLAND |
| SCALE      | AS_NOTED  |

Guidance: Hydroseeding and Type 1 BMP in down-gradient area for all new disturb.

Size of affected area approximately 51 acres



| Reviewed | Revised  | Env. Rep. Initials | Revised By Initials |
|----------|----------|--------------------|---------------------|
|          | 5-8-09   | DM                 | ZT                  |
|          | 11-9-10  | DH                 | CS                  |
|          | 12-21-10 | DH                 | CS                  |
|          | 2-12-12  | BK                 | CS                  |
|          | 5-1-12   | BK                 | CS                  |
|          |          |                    |                     |



East End 2012  
L:\Drawings\Pond Drawings\DWG files for Current  
SWPPP Figures\4pndLandOwnership.dwg

Shoshone County  
Mullan, ID



SWPPP Figure 11

|            |           |
|------------|-----------|
| DATE       | 04-10-08  |
| DRAWN BY   | B_ROLLINS |
| CHECKED BY | D_HOLLAND |
| SCALE      | AS_NOTED  |

## **ATTACHMENT B – Photograph Log**

(Photographs were taken by Matt Vojik on June 10, 2019 with a Panasonic DMC-FH25 camera)



**Photo 1 / P1050015** – Southerly view of a stormwater catchment basin near the mill



**Photo 2 / P1050020** – Westerly view of a stormwater catchment basin and sump pump located downgradient of the mill



**Photo 3 / P1050032** – Discharge from wastewater treatment plant 002



**Photo 4 / P1050022** – Clarifier at wastewater treatment plant 003



**Photo 5 / P1050023** – Easterly view of the discharge flume from wastewater treatment plant 003



**Photo 6 / P1050033** – Northeasterly view of capped discharge pipe (circled) at decommissioned Tailings Pond 1



**Photo 7 / P1050021** – Southwesterly view of tailings pond 4



**Photo 8 / P1050027** – Northerly view of the storm drain upstream of stormwater outfall 001

**Complete list of photographs taken during the inspection:**

- P1050015 – Southerly view of a stormwater catchment basin near the mill
- P1050016 – Northeasterly view of an open dumpster near the mill
- P1050017 – View inside an open dumpster near the mill
- P1050018 – Storm drain located downgradient from the mill
- P1050019 – Effluent composite sampler at the mill
- P1050020 – Westerly view of a stormwater catchment basin and sump pump located downgradient of the mill
- P1050021 – Southwesterly view of tailings pond 4
- P1050022 – Clarifier at wastewater treatment plant 003
- P1050023 – Easterly view of the discharge flume from wastewater treatment plant 003
- P1050024 – Westerly view of the vegetated pond downstream of the discharge flume from wastewater treatment plant 003
- P1050025 – Detail view of the storm drain upstream of stormwater outfall 001
- P1050026 – Detail view of the discharge structure at stormwater outfall 001
- P1050027 – Northerly view of the storm drain upstream of stormwater outfall 001
- P1050028 – Westerly view of pond 2
- P1050029 – Northwesterly view of a stormwater runoff channel on the surface of pond 2
- P1050030 – Southeasterly view of a stormwater runoff channel on the surface of pond 2
- P1050031 – Discharge from wastewater treatment plant 002
- P1050032 – Discharge from wastewater treatment plant 002
- P1050033 – Northeasterly view of capped discharge pipe at decommissioned Tailings Pond 1